CLAIMS

What is claimed:

1. 1. A computer system for generating recommendations, the system comprising:

   2   a rule system for defining a set of rules, each rule having a predicate component and an

   3   action component,

   4   a set of recommendation systems, and

   5   a defined interface for accessing each of the recommendation systems in said set of

   6   recommendation systems to permit a one of the recommendation systems to be invoked

   7   from an action component in a rule in the set of rules in the rule system.

   1 2. The computer system of claim 1 in which the set of recommendation systems comprises

   2   one or more empirical recommendation systems.

   1 3. The computer system of claim 2, further comprising a set of connections, each connection

   2   comprising a means for passing data from the rule system to a one of the empirical

   3   recommendation systems for processing by the empirical recommendation system.

   1 4. The computer system of claim 3 in which the means for passing data from the rule system

   2   to the empirical recommendation system comprises an event-listener connection.

1 5. The computer system of claim 4 in which the rule system comprises rules for receiving

2   events, rules for filtering events and rules for forwarding events to a one of the empirical

3   recommendation systems.

1 6. The computer system of claim 2 in which the rule system comprises rules for preprocessing

2   data prior to accessing a one of the empirical recommendation systems.

1 7. The computer system of claim 2 in which the rule system comprises rules for

2   postprocessing data following the access of a one of the empirical recommendation

3   systems.

1 8. The computer system of claim 2 in which the defined interface comprises a definition of

2   means for obtaining recommendations based on a specified user from the one or more

3   empirical recommendation systems.

1 9. The computer system of claim 2 in which the defined interface comprises a definition of

2   means for the one or more empirical recommendation systems to prioritize items based on a

3   specified user.

1 10. The computer system of claim 3 in which the recommendations of the computer system are

2   provided to a web-based display system for the display of pages to a shopper in an

3   electronic commerce site maintained for an on-line store.

1 11. The computer system of claim 10 in which the defined interface defines a means to make

2   available to the one or more empirical recommendation systems the following:

3   a) data uniquely identifying the shopper,

4   b) data uniquely identifying the store, and

5   c) a specified maximum number of recommendations.

1 12. The computer system of claim 11 in which the defined interface defines a means to make

2   available to selected ones of the one or more empirical recommendation systems one or

3   more of the following:

4   a) a set of initial recommendations,

5   b) a set of category information for constraining the recommendations to be returned, and

6   c) information about the environment from which the rule system was invoked.

1	13. A computer system for generating recommendations for personalization of an e-commerce
2	site, the system comprising,
3	a rule system for defining a set of rules, each rule having a predicate component and an
4	action component,
5	a set of empirical recommendation systems,
6	a defined interface for accessing each of the empirical recommendation systems in said
7	set of empirical recommendation systems to permit a one of the empirical
8	recommendation systems to be invoked from an action component in a rule in the set of
9	rules in the rule system, and
10	a set of event-listener connections, each connection comprising a means for passing data
11	from the rule system to the empirical recommendation system for processing by the
12	empirical recommendation system.

1	14. The computer system of claim 13 in which the rule system comprises rules for
2	preprocessing data prior to accessing a one of the empirical recommendation systems.

1	15. The computer system of claim 13 in which the rule system comprises rules for
2	postprocessing data following the access of a one of the empirical recommendation
3	systems.

1 16. The computer system of claim 13 in which the defined interface comprises a definition of

2 means for obtaining recommendations from the set of empirical recommendation systems

3 based on a specified user accessing the e-commerce site.

1 17. The computer system of claim 13 in which the defined interface comprises a definition of

2 means for the set of empirical recommendation systems to prioritize items based on a

3 specified user accessing the e-commerce site.

1 18. The computer system of claim 13 in which the recommendations of the computer system

2 are provided to a web-based display system for the display of pages to a user accessing the

3 e-commerce site.

1 19. The computer system of claim 13 in which the defined interface defines a means to make

2 available to the set of empirical recommendation systems the following:

3 a) data uniquely identifying a consumer accessing the e-commerce site,

4 b) data uniquely identifying the e-commerce site, and

5 c) a specified maximum number of recommendations.

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1   20. The computer system of claim 19 in which the defined interface defines a means to make

2   available to selected ones of the set of empirical recommendation systems one or more of

3   the following:

4   a) a set of initial recommendations,

5   b) a set of category information for constraining the recommendations to be returned, and

6   c) information about the environment from which the rule system was invoked.

1   21. A computer program product for providing recommendations, the computer program

2   product comprising a computer usable medium having computer readable code means

3   embodied in said medium, comprising computer readable program code means for

4   implementing the computer system in any of claims 1 to 20.

1 22. A method for generating a set of personalization recommendations using a rule system, and

2 a set of empirical recommendation systems, the rule system comprising rules having

3 predicates and actions, the method comprising the steps of:

4 defining an interface to permit the empirical recommendation systems in said set of

5 empirical recommendation systems to be called from the rule system,

6 defining a set of rules in the rule system, selected rules in the set of rules comprising

7 calls using the interface to the empirical recommendation systems, and

8 invoking the rule system to provide a set of personalization recommendations by

9 evaluating rule predicates and firing rule actions in the rule system and to call one or

10 mor of the empirical recommendation systems as defined in the fired rule actions

1 23. The method of claim 22 where the step of calling an empirical recommendation system

2 defined in a fired rule action further comprises the step of establishing an event-listener

3 connection to the empirical recommendation system to permit data to be provided to the

4 empirical recommendation system.

1 24. The method of claim 23 in which the step of defining rules in the rule system further

2 comprises the step of defining preprocessing rules for preprocessing event data before

3 passing an event to the empirical recommendation system.

1   25. The method of claim 23 in which the step of defining rules in the rule system further

2   comprises the step of defining postprocessing rules for postprocessing recommendations

3   provided by the empirical recommendation system.

1   26. A computer program product for providing recommendations, the computer program

2   product comprising a computer usable medium having computer readable code means

3   embodied in said medium, comprising computer readable program code means for

4   implementing the method of claims 22, 23, 24 or 25.

1   27. A computer program comprising computer program code means adapted to perform the

2   steps of any of claims 22 to 25 when said program is run on a computer system.